***Abstract 0195-Table***

| | ET | | ET+EMS | |
|---|---|---|---|---|
| | Baseline | End of program | Baseline | End of program |
| Musc Circumf (cm) | 43.0±4 | 43.8±4 | 44.7±5 | 43.0±4 |
| Musc Strength (kg) | 23.4±10 | 30.5±14 | 23.7±11 | 29.9±14 |
| CPK (UI/l) | 103.1±83 | 138.1±153 | 101.4±81 | 99.6±68 |
| LDH (UI/l) | 239.1±100 | 257.0±1089 | 255.3±124 | 257.4±132 |
| Aldolase (UI/l) | 4.7±2 | 4.8±3 | 4.5±2 | 4.1±2 |
| Myoglobin (µg/l) | 52.0±36 | 84.5±169 | 52.3±26 | 53.4±44 |

# 0354

## Kinetics of regional myocardial strains at the onset of dynamic exercise

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In cardiac diseases or healthy aging, the oxygen uptake kinetics are limited by muscle O2 delivery, which directly depends of the response of the cardio-respiratory system at the onset of exercise. However, data regarding cardiac adaptation during the transition from rest to exercise are limited to heart rate, stroke volume and cardiac output. Today, new advances in echocardiography based on speckle tracking enables an evaluation of regional left ventricular (LV) strains. In this context, we aimed to evaluate the kinetics of regional LV strains at the onset of dynamic exercise. 25 young adult males (23 ± 4 years) were recruited. Each subject performed five similar 4-min constant-load exercises on a dedicated ergometer in a semi-supine position. The five tests were used to record 2D cine loops from different echocardiographic views every 15 sec during the first minute, and then every 30 sec. Stroke volume (SV) was assessed using a Pedof and longitudinal strain (LS) and circumferential strain (CS) at the base and the apex using speckle tracking. The major findings of the study indicated that, at the onset of exercise, the adaptations of SV and LV strains were very fast since they achieved their maximal response between 30 and 60 sec. Increase in LS and CS strains was higher at the apex compared to the base (–30 ± 5% vs –19 ± 3% for LS and –32 ± 6% vs –21 ± 4% for CS) underlining the key role of the apex at the onset of dynamic exercise. In conclusion, the present study presents original data regarding the transient response of LV strains at the onset of exercise in healthy subjects. Using such methodology, further studies will be needed to characterize these dynamic adaptations during the transition from rest to exercise in patients under various diseases such as heart failure, diabetes or obesity

# 0010

## Adherence to antiplatelet after acute coronary syndrome

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**Background**: Current guidelines recommend the use of Dual antiplatelet therapy (DAT) aspirin and a thienopyridine, such as clopidogrel or prasugrel or ticagrelor, for 12 months after an acute coronary syndrome (ACS). Limited information is available on medication adherence especially on prasugrel and ticagrelor.

**Aims:** Comparison of the patient adherence to these 3 recommended treatments. A secondary objective was to identify risk factors of non-adherence to each treatment.

**Methods**: We conducted a retrospective observational study on patients admitted for ACS in two cardiology care units of the west of France (a) (b) between 1/10/2012 and 01/10/ 2013. Patients were grouped according to the DAT in 3 groups: clopidogrel, prasugrel and ticagrelor. Medication adherence was assessed by telephone interview, with a validated scale, after at least 6 months of treatment. The treatments' side-effects were also appraised.

**Results**: From a total of 1077 patients with a ACS, 335 surviving patients with usable response were included. The median follow-up was 9 months. 119 patients in clopidogrel group, 123 patients in prasugrel group and 93 patients in ticagrelor group were included. A non-adherence was noted in 19% of the cohort group. A significant difference in non-adherence was noted between clopidogrel (13 %), prasugrel (18 %) and ticagrelor (27 %) (p = 0.05). Younger age (< 50 years old) (OR 10, 65; p < 0.001) and minor hemorrhage (OR 2.495; p= 0.009) were independent risk factors of non-adherence for each treatment. In Clopidogrel group, the predictors of non-adherence were hypercholesterolemia (OR 3.02; p = 0.01), and major digestive hemorrhage (OR 33; p 0.009). In Prasugrel group, patients with high blood pressure (OR 6.77; p=0.007); or with a high number of medications were statistically associated with non-adherence (OR 3.41; p= 0.04). In Ticagrelor group, minor hemorrhage (epistaxis, gingivorrhagia.. .) were also associated with non-adherence (OR 5.17; p= 0.05)

**Conclusion:** After ACS, non-adherence to antiplatelet treatments was observed in about 1 out of 5 patients with significant difference between the different drugs in this non randomized study. Younger ages, higher number of total medications, and side effects such as minor hemorrhage were associated with non-adherence.

# 0301

## Effects of low and high polyphenols content lettuces consumption on high fat diet induced metabolic syndrome and endothelial dysfunction

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Consumption of vegetables has been recommended to reduce the risk of cardiovascular disease. The protection against disease is partly due to bioactive molecules including polyphenols. In order to evaluate the effects of such polyphenols, we supplemented High Fat diet rats with low and high polyphenolic content lettuces. 32 Wistar rats were divided in 4 groups, a control group (Ctrl), a high fat and sucrose diet group (HFS, 60% fat+10%sucrose) and 2 groups that after 6 weeks of HFS diet were supplemented 8 weeks with both HFS diet and either a low or high polyphenol content lettuces (HFS-LP; Blond Oak Leaf, 30g/day vs. HFS-HP; Red Oak Leaf, 30g/day). After 14 weeks of HF diet including 8 weeks of supplementation, we performed a glucose tolerance test and an evaluation of arterial blood pressure (BP) by tail cuff method. Then, aortic endothelial function and eNOS dependent vasodilatation were evaluated ex vivo on isolated rings. Firstly, we observed a higher body weight in HFS group (502±21g) compared to Ctrl group (417±14g) without any effect of both supplementations. Regarding glycemic control, HFS group presented increased fasting blood glucose (1,37g/l vs. 1,20g/l) as well as an impairment of glucose tolerance. Interestingly, both groups with lettuces intake displayed healthy fasting blood glucose values (1.14g/l and 1.15g/l) and an improvement of glucose tolerance. Moreover, both lettuces treatments